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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/982,234	10/19/2001	Daigo Kaneko	381NP/50449	7613

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Crowell & Moring LLP
Evenson, McKeown, Edwards & Lenehan
Intellectual Property Law Group
1001 Pennsylvania Avenue, N.W.
Washington, DC 20004-2595

EXAMINER

FLETCHER, MARLON T

ART UNIT	PAPER NUMBER
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2837

DATE MAILED: 09/04/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/982,234

Applicant(s)

KANEKO ET AL.

Examiner

Marlon T Fletcher

Art Unit

2837

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 October 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,4,8-13,15 and 16 is/are rejected.
- 7) ☐ Claim(s) 3,5-7 and 14 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 3. 6) ☐ Other:

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1-16 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 1-16 fail to recite any structural connections between the rotor position estimator and the mobile body position estimator nor how they function together.

3. Claims 1-16 are rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential elements, such omission amounting to a gap between the elements. See MPEP § 2172.01. The omitted elements are: structural elements tying the rotor position estimator and mobile position estimator together. How are they used in connection to provide control of a mobile body.

4. Claims 1-16 are rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential steps, such omission amounting to a gap between the steps. See MPEP § 2172.01. The omitted steps are: the steps for providing a relationship between the rotor position estimator and mobile position estimator and the steps for controlling the mobile body.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1, 2, 4, 8, 9, and 10-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Acarnley (6,005,364) in view of Tauchi et al. (6,328,136).

As recited in claims 1, 8, and 11, Acarnley discloses a method of controlling and controller driven by a synchronous motor comprising: a rotor position estimator (16) which estimates a magnetic pole position of a rotor of said synchronous motor based on electrical quantities (12, 14) in relation to electric power supplied to the synchronous motor as discussed in column 6 line 21 through column 7, line 23.

As recited in claims 2 and 11, Acarnley discloses a mobile body controller, further comprising motor speed control which controls the speed of said synchronous motor based on the position command as discussed in the abstract and column 12, lines 48-50, wherein speed control is provided.

As recited in claims 4, 9, and 12, Acarnley discloses a mobile body controller, further comprising position information correcting means which corrects the position of said the rotor which in turn controls the load based absolute position information of the load as discussed column 8, lines 26-36.

Although it may be inherent that the motor would control some load, Acarnley does not disclose controlling a mobile body via a mobile body position estimator. Acarnley provides speed control, but fails to disclose a speed command generator.

Art Unit: 2837

However, as recited in claim 1, Tauchi et al. disclose a mobile body position estimator which estimates the position of a mobile body (2) based on the magnetic pole position estimated by said rotor position estimator as discussed in column 1 line 62 through column 2, line 3; column 7, lines 18-39; and column 10, lines 29-45.

As recited in claims 2 and 11, Tauchi et al. discloses a mobile body controller, further comprising a motor speed command generator (49) which controls the speed of said synchronous motor based on the position command and the position of said mobile body estimated by said mobile body position estimator

As recited in claims 9, 10, 12, 13, 15, and 16, Tauchi et al. disclose a method of controlling a mobile body, comprising the further step of: correcting the position of said mobile body estimated by said second step based on absolute position information of said mobile body estimated by said mobile body position estimator based on absolute position information of said mobile body as discussed in column 7, lines 40-54, wherein the mobile body position corresponds directly to the rotor position.

It would have been obvious to one of ordinary skill in the art at the time of the invention to utilize the teachings of Tauchi et al. with Acarnley, because Tauchi et al. control system, wherein the load being controlled is a mobile body, wherein it could be understood that Acarnley provides control of a load.

Allowable Subject Matter


7. Claims 3, 5-7, and 14 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Art Unit: 2837

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marlon T Fletcher whose telephone number is 703-308-0848. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Nappi can be reached on 703-308-3370. The fax phone numbers for the organization where this application or proceeding is assigned are 703-308-7722 for regular communications and 703-308-7722 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.


Marlon T. Fletcher
Primary Examiner
Art Unit 2837


MTF

August 30, 2002